REMARKS

The specification has been amended in the "BACKGROUND OF THE INVENTION" section to reflect a typographical error in which a prior art reference was identified as US 6,575,750. The reference should have been identified as US 6,574,750. It is submitted that no new subject matter has been added as this reference was correctly identified earlier in the specification.

Applicant hereby requests any extension of time that may be necessary for consideration of this amendment, pursuant to 37 CFR 1.136(a).

Applicant hereby requests that any fee which may be required for the papers being filed with this letter be charged to, or any overpayment be credited to, Account No. 502651.

In the event that any PTO official wishes to discuss this application on the telephone, the call should be directed to the undersigned at (416) 865-8213.

Yours very truly,

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leading to an inconsistent state between the primary and backup. In general, US Patent 6,202,149 lacks certain features that are desired in the processing of on-line transactions and the like, and in particular lacks features needed to failover non-deterministic systems.

[0015] US Patent 6,308,287 proposes a method of detecting a failure of a component transaction, backing it out, storing a failure indicator reliably so that it is recoverable after a system failure, and then making this failure indicator available to a further transaction. It does not address the fail-over of a transactional application in a non-deterministic environment. US Patent 6,574,750 proposes a system of distributed, replicated objects, where the objects are non-deterministic. It proposes a method of guaranteeing consistency and limiting roll-back in the event of the failure of a replicated object. A method is described where an object receives an incoming client request and compares the request ID to a log of all requests previously processed by replicas of the object. If a match is found, then the associated response is returned to the client. However, this method in isolation is not sufficient to solve the various problems in the prior art.

[0016] Another problem is that the method of US 6,574,750 assumes a synchronous invocation chain, which is inappropriate for high-performance On-Line Transaction Processing ("OLTP") applications. With a synchronous invocation the client waits for either a reply or a time-out before continuing. The invoked object in turn may become a client of another object, propagating the synchronous call chain. The result can be an extensive synchronous operation, blocking the client processing and requiring long time-outs to be configured in the originating client.

[0017] While the foregoing patents feature some aspect of fault-tolerance and recoverability, they do not address the notion of failing-over an application to a separate system for non-deterministic systems used for on-line transaction processing.

Summary of the Invention

[0018] It is an object of the present invention to provide a novel system and method for failover that obviates or mitigates at least one of the above-identified disadvantages of the prior art. According to an aspect of the invention, there is provided a system for failover comprising